ANNOTATIONES ZOOLOGICAE JAPONENSES
Volume 48, No. 1—March 1975

Published by the Zoological Society of Japan

Two New Species of *Oribatella* Banks, 1895 (Oribatei, Oribatellidae) from India

With 4 Text-figures

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ABSTRACT This paper deals with two new species of *Oribatella* Banks (*O. alami* sp. n. and *O. kashmiriensis* sp. n.) which are described in detail. A key to some species of *Oribatella* is also provided.

Genus *Oribatella* Banks

The distinguishing characters of the genus *Oribatella* have been given in detail by Balogh (1961), Csiszár and Jeleva (1962) and Woolley (1967). The genus is reported for the first time from India with two new species.

Key to Some Species of *Oribatella* Banks

1. Interlamellar hairs normal, not expanded 2
— Interlamellar hairs lanceolate, expanded like a willow leaf; outer tooth of cuspis longer than inner tooth; rostral hairs very thick, gradually tapering, externally ciliated; dorsosejugal suture straight; ventral and anal plates punctate .... *O. phyllophora* Jeleva
2. Interlamellar hairs long, thick and barbed; anterior margin of rostrum rounded; lamellar hairs long, extending much beyond the anterior margin of rostrum 3
— Interlamellar hairs very short, thin and smooth; anterior margin of rostrum truncate and slightly weavy; lamellar hairs thick, club-shaped with dentate outer margin, extending just beyond the anterior margin of rostrum; rostral hairs short, smooth and curved; teeth of cuspis subequal .... *O. alami* sp. n.
3. Outer tooth of cuspis about as long as or longer than inner tooth 4
— Outer tooth of cuspis much shorter than inner tooth; dorsosejugal suture more or less straight; rostral hairs ciliate externally; lamellae sparsely punctate, projecting considerably beyond rostrum ... . *O. tenuis* Csiszár

4. Both the teeth of cuspis subequal.. 5
— Outer tooth of cuspis longer than inner tooth 7
5. Interlamellar hairs extending beyond the level of lamellar teeth 6
— Interlamellar hairs extending upto the level of lamellar teeth; teeth of cuspis extending slightly beyond the rostrum ....*O. angulosa* Csiszár
6. Teeth of cuspis long, extending beyond rostrum; dorsum of hysterosoma with 11 pairs of long, barbed hairs ....*O. magniseta* Ewing
— Teeth of cuspis not extending beyond rostrum; dorsum of hysterosoma with 10 pairs of comparatively shorter and barbed hairs ...*O. calcarata* C. L. Koch
7. Sensillus about half the length of lamella; peduncle of sensillus short; notogaster with 8 pairs of long hairs; genital hairs g: 1, g: 2 and g: 3 inserted on the outer margin of genital plate ....*O. dentaticuspis* Ewing
— Sensillus more than half the length of lamella; peduncle of sensillus long; genital hairs g: 1, g: 2 and g: 3 arranged in a triangle.. *O. kashmiriensis* sp. n.

Oribatella alami sp. n.

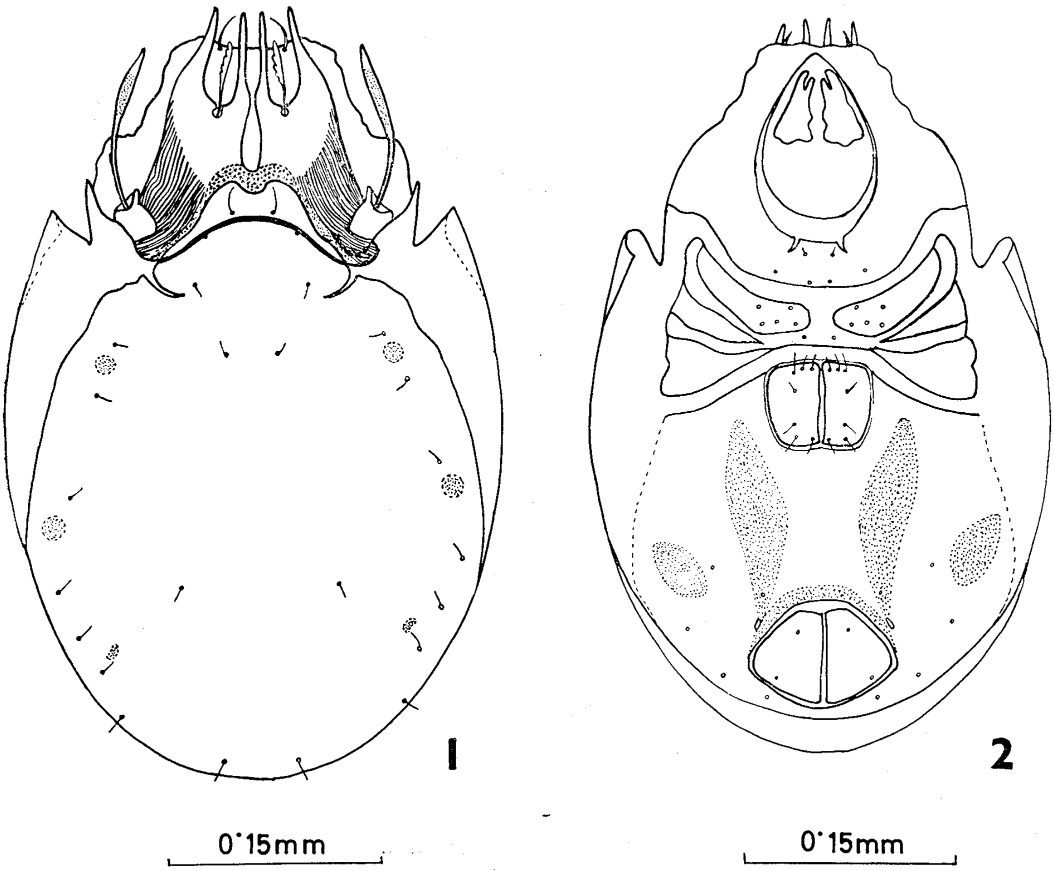
(Figs. 1–2)

Adult (Figs. 1–2). Body dark brown with hard integument.

Prodorsum. Smooth and almost inverted bell-shaped; anterior margin of rostrum truncate and weavy; rostral hairs short, smooth, thin and curved, spaced by a distance more than their length; lamellae broad covering most of the propodosoma; apices of lamellae deeply notched to form teeth of cuspis which are subequal in length; basal half of each lamella with prominent longitudinal striations; lamellar hairs thick, club-shaped, with outer margin dentate, just extending beyond the margin of rostrum, inserted at the base of each lamellar notch, much longer than inerlamellar hairs, inserted just anterior to dorsosejugal suture; sensillus long, reaching almost rostrum, directed upward and forward with weakly fusiform smooth head.

Notogaster. Smooth and almost oval shape; dorsosejugal suture obviously sclerotized and distinctly incurved at lateral ends; pteromorphae small, immovable, smooth and decurved; dorsal surface smooth, with 12 pairs of discernible hairs and 3 pairs of areae porosae.

Ventral region. Hairs on ventral plate as seen in Fig. 2; apodemata I curved and fused together at the sternal region to form a semilunar shape; apodemata II, III and IV typically converging towards perigenital region; genital aperture trapezoidal in outline, each cover with 7 fine and simple hairs (g: 1, g: 2, g: 3 in anterior margin of cover; g: 4 in the middle of cover, just posterior to g: 3; g: 5 posterior to g: 4, almost in line with g: 3 and g: 4; g: 6 and g: 7 in the posterior margin of cover), aggenital hairs not discernible; anal aperture larger than genital, wider than long, slightly less than one and a half times its own length posterior to



Figs. 1–2. *Oribatella alami* sp. nov.——1. Dorsal view.——2. Ventral view.

genital aperture; each anal cover with 2 hairs; adanal hairs discernible; fissure (*iad*) nearer middle of and parallel to the outer margin of anal aperture; two distinct regions of pockmarkings present.

Legs. All legs tridactylous.

Measurement. Body length: 0.52 mm; body width: 0.34 mm.

Material examined. Holotype (adult): INDIA: Jammu and Kashmir, Gulmarg, from roots of meadow grass, 6. IX. 1971, coll. M. A. Hafeez Kardar.——Paratype (1 adult): same data as for holotype. The material is deposited in the Zoological Museum, Aligarh Muslim University, Aligarh, India.

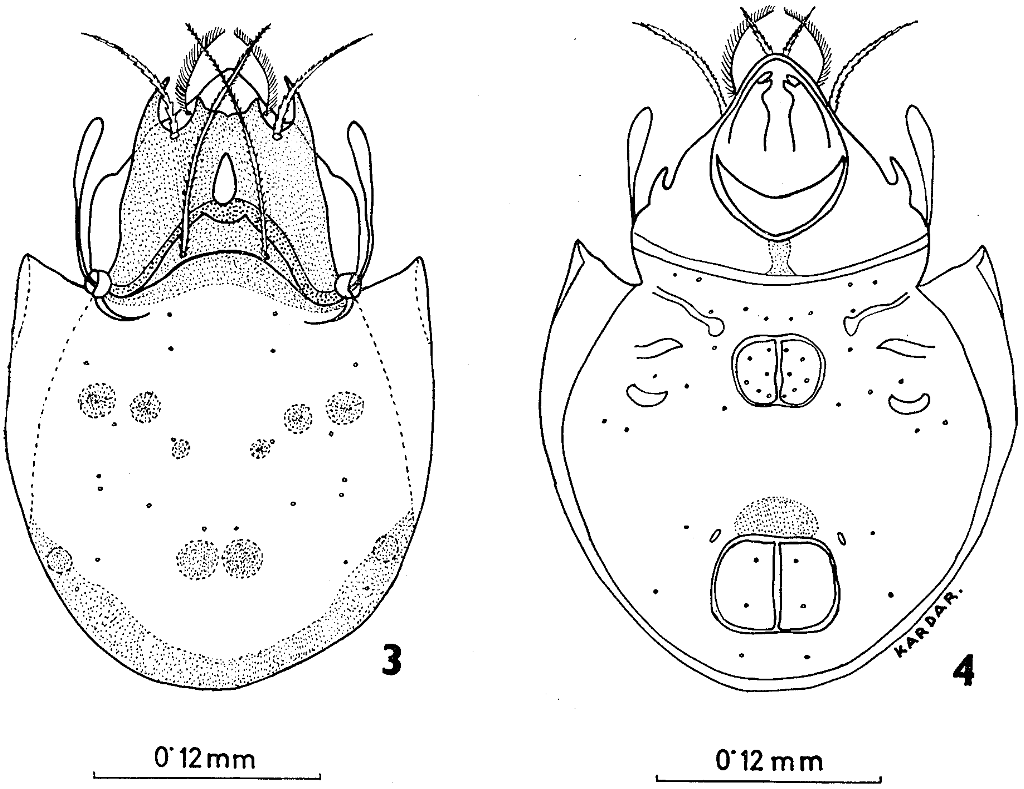
The species is named after Prof. S. M. Alam.

Oribatella kashmiriensis sp. n.

(Figs. 3–4)

Adult. Resembles *O. alami* sp. n. except in the following characters:

Prodorsum. Anterior margin of rostrum rounded; rostral hairs distinctly long, typically pectinate exteriorly and curved, spaced by a distance less than their



Figs. 3–4. *Oribatella kashmiriensis* sp. nov.——3. Dorsal view.——4. Ventral view.

own length; lamellae densely punctate, fused anteriorly and posteriorly, leaving a small oval area; each lamellar tip is moderately notched with outer tooth longer than inner one; lamellar hairs thick, barbed and slightly more than half the length of interlamellar hairs, extending much beyond the anterior margin of rostrum; interlamellar hairs longest of all the propodosomal hairs, extending much beyond the rostrum, obviously barbed, inserted just anterior to dorsosejugal suture; sensillus long, smooth, somewhat fusiform, reaching the level of lamellar notch.

Notogaster. With 11 pairs of distinct insertions of hysterosomal hairs and more than 4 pairs of areae porosae; fine pockmarkings in the anterior and posterior regions.

Ventral region. Distribution of hairs on ventral plate as seen in Fig. 4; weakly developed sternal ridge connection base of camerostome with apodemata I; apodemata II, III and IV distinct but not reaching genital aperture; each genital cover with 6 fine hairs; g: 4, g: 5 and g: 6 placed diagonally, while g: 1, g: 2 and g: 3 placed so as to form a triangle; a pair of aggenital hairs present posterolateral in position; preanal region with a distinct area of pockmarkings; fissure (*iad*) anterolateral in position to anal aperture; 3 pairs of adanal hairs.

Measurement. Body length: 0.34 mm; body width: 0.23 mm.

Material examined. Holotype (adult): INDIA: Jammu and Kashmir, Gulmarg, from roots of meadow grass, 6.IX.1971, Coll. M. A. Hafeez Kardar. Type-specimen deposited in the Zoological Museum, Aligarh Muslim University, Aligarh, India.

ACKNOWLEDGEMENTS

The author is greatly indebted to Prof. S. Mashhood Alam, Head, Department of Zoology, for his valuable guidance and for laboratory facilities. Thanks are due to Dr. J. Aoki, National Science Museum, Tokyo, Japan, for communicating the paper for publication. He is also thankful to his colleagues Dr. M. Hayat and Dr. S. Adam Shafee for valuable help. Financial assistance from State Council of Scientific and Industrial Research, U.P. is also acknowledged.

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